Vector Aviation METARs - v2

Domain Portfolio: Weather Imagery | Domain: Aviation | API Name: Vector Aviation METARs - v2

Geography: Global **Attribution Required:** NO **Attribution Requirements:** N/A

Overview

The Feature Data Service (FDS) API provides geographic features for a number of products. The client can use these features to render a visual representation of data.

- FDS provides geometric vector data where each feature can be a set of points, a polygon or set of polygons, a linestring or set of linestrings, or any other valid GeoJSON type
- Each feature is described by a set of geographic coordinates and a set of properties.
- Each feature is uniquely identified by the *combination* of its product key, feature key and valid time; the valid time is used to assign the feature to a unique feature set.
- For additional details about FDS, please see the Weather Company Data | Data Visualization - Weather Imagery | Common Usage Guide

Using FDS products requires a multi-step workflow to retrieve the necessary data for the specific product data request. Step 2 requires the **'time'** value parameter, found in the response from Step 1.

- **Step 1:** Get Product Info - Provides time-based labels for the feature sets that are currently available.
- **Step 2:** Get Features for a Single Tile - Provides all geographic features for a single tile, taken from a single feature set within a specific product.

HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide**.

URL Construction

Step 1: Get Product Info
Required Parameters: **productKey,** apiKey=**yourApiKey** **||** **Optional Parameters:** meta, max-times https://api.weather.com/v2/vector-api/products/**<productKey>**/info?**apiKey=yourApiKey**
The [**/products/{productKey}/info**] request provides the labels for the feature sets that are currently available. These labels are required as input for the subsequent [**/products/{productKey}/features**] request, and they are invoked in that request's **'time'** parameter.
https://api.weather.com/v2/vector-api/products/6000/info?meta=true&max-times=12&apiKey=yourApiKey
Step 2: Get Features for a Single Tile
Required Parameters: **productKey, time, lod, x, y,** apiKey=**yourApiKey** **||** **Optional Parameters:** declutter, tile-size https://api.weather.com/v2/vector-api/products/**<productKey>**/features?time=**<time>**&lod=**<lod>**&x=**<x>**&y=**<y>**&**apiKey=yourApiKey**
The [**/products/{productKey}/features**] request provides a set of features for a single tile, from a particular feature set within a particular product. Each feature contains a small set of key metadata properties, including its ID and valid time, which are required as input for any subsequent [**/products/{productKey}/feature-details**] request, as the **'feature-id'** and **'valid-time'** parameters.
https://api.weather.com/v2/vector-api/products/6000/features?time=1492016701805&lod=10&x=175&y=409&tile-size=256&apiKey=yourApiKey

Product Data Dictionary: 6000 - Aviation METARs

The source of the data includes WMO Bulletins received over various feeds such as NOAAPort and UKMO. There is no sense of current state. Observations are sent out as they are received from incoming streams of data.

The JSON data includes the following fields:

Field *Found in the GeoJSON response, in each feature's **properties** field*	**Description**
Valid_time	ISO-8601 Timestamp when the Observation occurred
Id	ICAO Station ID
Obs_name	Station Name
Valid_time_local	Local Timestamp of Observation
Valid_time_gmt	Unix Timestamp of Observation
Day_night_ind	Day Night Indicator, D(ay) or N(ight)
Temp	Temperature in Fahrenheit
Wx_icon	Weather Icon, static NULL
Wx_phrase	Weather Description, eg. Fair
Icon_extd	Extended Icon Code, static NULL
Mslp	Mean Sea Level Pressure in millibars if available, otherwise altimeter
Pressure_tend	Code for character of pressure change over last 3 hours (WMO Table 0200)
Pressure_desc	Pressure Tendency Description, e.g. Steady, Rising, Falling, Rising Rapidly or Falling Rapidly
Clg	Ceiling; Lowest cloud deck covering 60% or more of Sky in meters. Unlimited ceiling depicted as 99999.
Clds	Cloud Cover code of highest coverage cloud deck, e.g. CLR, FEW, SCT, BKN, OVC
Dewpt	Dew Point in Fahrenheit

Heat_index	Heat Index in Fahrenheit
Rh	Percent Relative Humidity
Pressure	Station Pressure from an Altimeter Reading
Pres_chg3hr	Pressure Change over the last 3 hours in millibars
Vis	Visibility in Statute Miles
Wc	Wind Chill in Fahrenheit
Wdir	Wind Direction in Degrees
Wdir_cardinal	Wind Direction in 16 Cardinal Compass sections, e.g. ENE
Gust	Gust Speed in Miles per Hour
Wspd	Sustained Wind Speed in Miles per Hour
Max_temp	Local Day Maximum Temperature in Fahrenheit
Min_temp	Local Day Minimum Temperature in Fahrenheit
Precip_total	Daily Accumulated Precipitation in inches
Precip_hrly	Rate of Precipitation in Recent Past
Snow_hrly	Rate of Snowfall in Recent Past
Snow_total	Depth of Snow on Ground in inches
Uv_index	UV Index based on location, time, elevation, and cloud cover
Uv_warning	UV Warning, static NULL
Uv_desc	UV Description, static NULL
Feels_like	Feels Like Temperature in Fahrenheit
Vocal_key	Vocal Key, static NULL
Wxman	Static NULL

Qualifier	Qualifier, static NULL
Qualifier_svrty	Qualifier Severity, static NULL
Temp_chg24hr	24 Hour Temperature Change in degrees Fahrenheit
Can_wc	Canadian Wind Chill in Celsius
Can_heat_index	Canadian Heat Index in Celsius
Water_temp	Water Temperature, static NULL
Primary_wave_period	Primary Wave Period, static NULL
Primary_wave_height	Primary Wave Height, static NULL
Primary_swell_period	Primary Swell Period, static NULL
Primary_swell_height	Primary Swell Height, static NULL
Primary_swell_direction	Primary Swell Direction, static NULL
Secondary_swell_period	Secondary Swell Period, static NULL
Secondary_swell_height	Secondary Swell Height, static NULL
Secondary_swell_direction	Secondary Swell Direction, static NULL
Raw_data	Raw Report Data
Report_type	Report Type Code, e.g. M(ETAR) or S(PECI)
Cloud_cover	Array of Cloud Cover percentages for each Cloud Deck
Cloud_base_height	Array of Cloud Base Heights in Meters
Flight_rule	Flight Rule Code, e.g. VFR, MVFR, IFR, LIFR, CAT1, or UNK
Wind_direction_variability	Wind Direction Variability in Degrees
Weather	Categorical Weather Codes (WMO Table 4678)
Cloud_type	Array of Cloud Type Code for each cloud deck, e.g. NC=non-convective, TCU=towering cumulus, CB=cumulonimbus

Altimeter	Altimeter (QNH) Pressure in millibars
Automation_type	Code for automation level, e.g. MAN=manned
Sensor_status	Bit flags indicating status of sensor; 0=all working, other values indicate sensor broken or missing